GRATTAN Institute

Electricity distribution pricing: is it fixed yet and are we on track to addressing the problems?

Distribution costs have been the biggest contributor to major increases in electricity prices in the last few years. In the latter half of 2012, the Prime Minister and Minister Ferguson made high-profile statements in regard to long-overdue market reforms, as did several State Ministers. At its December meeting, the Council of Australian Governments (COAG) endorsed a package of energy market reforms for the National Electricity Market. But is there real commitment and will these deliver the necessary cost reductions?

In Queensland, the LNP government has pushed to rein in electricity prices and froze tariffs for the 2012-13 year. However, a recent determination by the Queensland Competition Authority would see double digit price increases for 2013-14 due to increases in the underlying costs of supply, which are predominately driven by increases in network charges.

At this seminar, John Pierce, the Chair of the Australian Energy Market Commission discussed changes to the way electricity network prices will be determined. Tony Bellas, the Chair of Queensland's Independent Review Panel on electricity price reform, outlined the state of play in Queensland and Tony Wood, Energy Program Director at Grattan Institute, provided a comparison against the recommendations of the Grattan report *Putting the customer back in front: how to make electricity cheaper*.

Speakers: **Chris Greig, Director UQ Energy Initiative**
John Pierce, Chair, The Australian Energy Market Commission
Tony Wood, Energy Program Director, Grattan Institute
Tony Bellas, Chair, Queensland's Independent Review Panel

CHRIS GREIG: Good evening everyone, and welcome to this joint event of the UQ Energy Initiative and the Grattan institute. It's the first joint event between UQ and Grattan and I think it'll be the first of a few. My name's Chris Greig, I'm the Director of the University of Queensland Energy Initiative and tonight I'm going to moderate this event about electricity pricing.

So electricity pricing is certainly a hot topic, from kitchen rooms to parliament floor. In preparation for tonight - I'm one of these people who doesn't really look at his electricity bill, it just gets paid - so I decided to go back and I had one actually from three years ago. And what it showed me was that, despite having one-and-a-half less people in the house, since three years ago my electricity bill did double. So there's no doubt we're talking about hyper-inflation here and we have lots of finger-pointing going on. So I've sat in events where the Prime Minister accuses the state governments of gold plating and then I've seen the state minister saying "But hang on a minute, you guys regulate us". So it's a very complicated topic for the layman to understand where these prices are.

What everyone seems to agree is that the distribution part of it is a major contributor to electricity price increases. We've had the Prime Minister, we've had Martin Ferguson, we've had state ministers, and we've had the shadow minister from the federal Liberal party all say and give very strong statements about long overdue reforms and we've had COAG endorse a major package of reforms. So where are we after all of these reforms or as these reforms are being implemented and are we on track to get electricity prices under control?

I think you'd agree that tonight we've got a panel of people; you couldn't get a better group to give us a bit of a picture of this.

To begin, we have John Pierce who's the Chair of the Australian Energy Market Commission and he's going to present the changes to the way electricity network prices are determined. John was appointed as Chairman of the Australian Energy Market Commission in June 2010. He brings a lot of energy market and financial market and economic policy experience to this role. He was formally Secretary of the federal Department of Resources, Energy & Tourism, following 12 years as Secretary of the New South Wales Treasury and Chairman of the New South Wales Treasury Corp. Prior to this he had energy experience in Pacific Power and the Electricity Commission of New South Wales.

John will give a short presentation and then we're going to have more of a discussion. So we'll be joined by the panellists which include Tony Bellas, he's the Chair of Queensland's Independent Review Panel on electricity pricing, and Tony Wood, the Energy Program Director at Grattan Institute. But to begin proceedings, I'll hand over to John Pierce.

JOHN PIERCE: Thank you and thanks for coming along. I suppose I should start by thanking Tony for extending an invitation I couldn't refuse to speak to you this evening. The Grattan Institute's Energy Research Program, in fact from the Commissioner's viewpoint, makes an important contribution to the discussion of these and indeed some other issues in the sector. We're quite happy to see that discussion held as widely as possible. I also should thank the University of Queensland for hosting this evening's event, I'm just commenting on it's not a bad venue; I wish we had one similar. And with the work that Tony's panel has been doing within Queensland and some of the things that the Queensland government has been considering with its future energy strategy, then it makes Brisbane a very appropriate location to start talking about some of these electricity distribution and regulatory issues. My role is really to be the main course that you can all feast on and, off the back of it, Tony and the panel's discussion. So I won't take you through the rules word-by-word, but just touch on a few of the issues we've had to deal with.

A comparison of the AMC's final determinations on network regulation that we brought down at the end of last year with the Grattan Institute's report, which is really part of the basis of tonight, would I think reveal that the Commission shares very similar views on a lot of issues with the Grattan Institute. At least in terms of identifying the issues that needed to be addressed in the regulation of these network businesses so that in the diagnostic phase we're on very similar ground. In particular, we agree that the previous approach to estimating the rate of return, which in the previous rules had a very prescriptive approach to it, had not handled well the changes that we've seen in recent years in the state of financial markets. And I think we now recognise within the rules that estimating the appropriate rate of return for these businesses requires the regulator to exercise a degree of judgement weighing up evidence from a range of sources; that is that there's no single financial model which tells you the truth. We also agree that the previous network regulation rules did not get the balance right in relation to the regulator's ability to scrutinise the capex programs of the business, particularly the capital expenditure that the businesses incurred above the regulatory allowance that was provided through the process. And that there was some ambiguity about the powers of the regulator to bring the sort of information you can get out of benchmarking, be it in relation to rate of return or on the expenditure side and bring that sort of evidence to bear in making their determinations and so we sought to clarify that.

But there are some other issues that the Grattan Institute commented on which weren't strictly within the scope of these rule changes. One was in relation to the way reliability standards are set and while it's state governments, rather than the rules themselves, that determine reliability standards, we've done a review of the standards for New South Wales which showed that greater application of a cost-benefit framework has the potential to allow for what we regard as more efficient decisions on reliability. I'm quite happy to discuss that later. And during this year the ministry or council that sits above us has asked us to develop a similar sort of framework nationally which would be available essentially for the states to opt into. Secondly, governments have also recently sought advice from us on the ability of the regulatory framework to deal with the situation where the actual demand during a regulatory period is quite different, i.e. lower, than the demand levels of a forecast when the regulatory determinations were made. And, again, I'm quite happy to discuss that later this evening.

In addition to agreeing on many of the issues and the diagnostics of some of the things that drove the electricity prices that were spoken about earlier, there are also I think many areas where the Grattan Institute and ourselves have come to the same conclusion about solutions. The real changes that we made last year really dealt with four areas: the way the rate of return is determined; the incentives that the regulator can apply to the network businesses in relation to their capital expenditure, where the risks and the rewards lie; how they determine the capital and operating expenditure allowances; and, finally, some changes to the regulatory process itself.

There's an important context that I think we certainly emphasised at the beginning of our real change process and we would continue to emphasise, which is that the outcomes that people are experiencing, both in terms of prices and reliability, sure are a function of the rules that we've a statutory responsibility for, but they're also a function of the way those rules are interpreted and applied by the regulators and by the businesses themselves. And the third important variable is the way in which the businesses are governed, the governance structure that applies to them. And you really need all three variables going in the right direction to have confidence in the outcomes. I'll refer back to particularly the governance issue a bit later.

While it's really for the Australian Energy Regulator (AER) to determine what the rate of return number is, the rules we put in place are intended to give the regulator much greater scope to consider all the relevant evidence about the rate of return that's appropriate for a benchmark-efficient network business, the similar levels of risk to the regulated business that it's dealing with. And if you want an insight into it, the best way to gain that would really be to participate in the process that the AER is running at the moment, which the rules require them to do, which is to develop guidelines for how they're going to estimate or apply the rate of return in its regulatory determinations. That extensive process of consultation that the AER is going through is quite an important one for ultimately determining what outcomes come out of the process.

In terms of some of the detail, there's obviously a raft, but one of the more important ones we considered were arguments for adopting an approach to setting the cost of debt that was based on a trailing average to better reflect the cost of debt of a network business that typically maintain a portfolio of debt raised over a five or 10 year period, as distinct from something which was more akin to observing a spot rate at the time you were making a regulatory determination and pretending that that was going to be relevant over the five years that the regulatory determination was to apply for.

As we were developing these rules and discussing it with people, it became clear that designing a mechanistic approach to that is quite complex and that a single approach for all the businesses that are regulated under these rules would not be the best way forward. So we've given the AER the option to adopt that approach under the rules. And the way in which they will decide whether to adopt that approach or indeed other approaches is what's being determined essentially through this rate of return guideline development process that they're going through now.

We also have supported the strengthening of the incentives on the network businesses to incur capex efficiently, of course. In particular, the rule changes give the regulator much greater capacity to place ex-ante incentives on the businesses to manage their capital programs efficiently and provide, effectively as a last resort, the powers to do exposed reviews so that they can disallow inefficient overspends of capex beyond the allowances. This allowance essentially then means that that capital expenditure doesn't go into the asset base for the next regulatory period and if we run the numbers on this the size of the asset base and the rate of the return are the two biggest determinants of the price outcomes that you get.

So whilst there's quite a few things that the Grattan Institute and ourselves would agree on, which I've tended to focus on up until now, there's perhaps two areas where I suspect we would have a difference of view. One is in relation to the diagnostics and one is in relation to one of the recommendations the Grattan Institute put forward.

The diagnostic difference of view is really there's a sense from their report that there's acceptance of what became a bit of an accepted truism in the debates around these issues last year, that particularly the publicly owned distribution networks had a positive incentive to expand their asset base to spend more capital than they actually needed to provide the services that they needed to provide in order to get higher dividends for their governments once that capital had been spent. I'm quite happy to expand on it later, but I suppose from my own experience the logic of that sort of argument from the viewpoint of a government who owns these businesses is it just doesn't make sense at all, at least from the viewpoint of things like the public finance perspective which would naturally bring to it if you are a government owner of these businesses.

The second area where perhaps we have a difference of view, and this was one of the recommendations, was really in the area of the way in which demand forecasts are applied and used within the regulatory process. The Institute proposed that the businesses' capex forecast should be updated annually to reflect changes in the demand forecasts that are provided by the system operator, the Australian Energy Market Operator (AEMO) so that those forecasts became the forecasts upon which the businesses capital plans are proposed and which the regulator would therefore have to use. That idea has received some support from some other stakeholders and taken even further in the sense that it's been built on to propose that major augmentations in these networks should be taken effectively out of the regulatory process and approved on a project-by-project basis. So the regulator has to approve each individual major project, rather than it being included in the broad revenue allowance and the broad capital expenditure allowances that the regulatory framework provides.

We were a bit concerned about these sorts of moves because to us what it means is a move towards regulation away from incentive-based regulatory regimes that we've applied in this country since we've had these sorts of independent regulations, and a move towards a cost of service-type of regulatory system that exists in the US. There's a couple of principles that we tend to fall back on around accountability and maintaining clear sights as to who is accountable for what; incentives for efficient investment; and, most importantly, being quite explicit about where risks get allocated. And there's a separate question about whether we should be regulating revenues or regulating prices or average revenue Depending on which one you're actually regulate you get a different distribution of risks. And moves towards a project-by-project regulatory process, in our view, starts to blur the accountabilities; remove incentives for the businesses to be too concerned about how efficient those particular investments are; and places consumers at greater risk.

This incentive-type regulation that we've adopted in Australia has been applied in the utilities sector generally, not just in this sector, starting with state regulators when we started to move down this track during the 1980s and has transferred across to the national regime in energy networks. That's not to say that what we have is perfect, as we've just gone over some of the issues, but the approach we think is to improve the incentive-based regimes, not slip into a completely different regulatory model where responsibilities are clear, accountabilities are clear, and if the lights don't stay on we know who to blame, we don't get mixed up as to whether it's the business, the regulator or the operator.

The planning regime that also exists as part of the rules provides further reassurance that the investment decisions that these businesses make can be made using the latest available information. There are mechanisms within the rules to guide the individual business decisions – you'll have to excuse the acronyms – the RIT-T tests and the RIT-D tests which is really a benefit-cost analysis that has to be applied by the businesses, the annual planning reports that are published by the businesses, and the operator, AMEO's, role as the national planner at the transmission level, all are sources of information that can feed into the regulatory process that the Australian Energy Regulator runs.

Now some might argue that these concerns would not matter much if we could be confident that the operator's demand forecasts were clearly better or superior than those of the network businesses. However, demand forecasting – for anyone that's had a go at it – has always been challenging and arguably is becoming even more so, particularly given the role of government policies such as those that provide incentives for better generation, not to mention the sort of structural changes we're seeing in the economy more broadly which is increasing the levels of demand that these network businesses are facing. I don't think however hard anybody works at trying to do good forecasting it will simply not possible to have a single organisation that has all the knowledge necessary to ambiguously and continuously make the best forecasts or to have a monopoly on truth, if you like. A regulatory regime that's predicated on essentially the exercise of an omnipresent all-knowing planning being will, I think, over time fall into disrepute. The AER however, we believe, should have a range of forecasts and sources of information available to it, including from the operator, to challenge the proposals that are put to it from the individual businesses, but I don't think we should be doing anything that takes the accountability for the outcomes away from the businesses themselves.

So just to conclude, the new rules that we've put in place I think significantly strengthen the capacity of the regulatory to provide greater assurances that consumers are receiving value for money from the network businesses. We see that as a necessary, but certainly not sufficient, condition. I mentioned the other two variables at the beginning of the presentation around the way the rules are applied and the governance structures of the businesses, but there's also a whole bunch of work on the demand side that the Commission's been doing recently and governments are considering. Nevertheless, there remains a lot of work for the AER and the businesses and indeed all the stakeholders involved in this process, to get the most efficient way to apply these rules, and the issues papers and guideline development that the AER is going through at the moment will be an important part of that process.

For those that have read the Grattan Institute's report, you'll notice that so far I've avoided talking about one aspect of their recommendations, namely the ownership of the business and the role of shareholders. Decisions about privatisation are appropriately ones for governments and inappropriate for the AMC to make. I did spend 15 years of my life trying to get some of these things sold and have the scars to prove it, but not a lot of success. However, the point I'd really make from the Commission's viewpoint is that it's important to recognise that a good regulatory regime will not be sufficient and that shareholders – public and private – have a critical role to play because without the appropriate incentives coming through on the management from the shareholders then we're not going to get the productivity improvements, which was the purpose of having this market arrangement in the first place, within the business.

I always saw the shareholders and the regulator as having a community of interest in the sense that both their outcomes they're looking for could be achieved if they acted almost like a pincer movement putting pressure on the management to improve their productivity. And if one part of that story, either the shareholders or the regulator, are not putting the appropriate pressure on management then they get let off the hook.

Thank you. I hope that gives you enough to start a discussion.

CHRIS GREIG: Thanks John. So I'd like to invite some sort of responses from our panel. I'll start with Tony Bellas. Tony, last year Queensland Minister for Energy & Water Supply, Mark McArdle, appointed you to chair an independent panel of three to overview how power delivery by state owned electricity operators in Queensland was going to be reformed. Can you give us an update on where that's headed, progress that's been made, and conflict or agreement with the AMC's findings?

TONY BELLAS: Thanks. The Independent Review Panel was established in May or June of last year and I need to make a correction: it didn't look at electricity price reform; it looked at the impact of network costs on electricity prices. So it was quite specifically about the costs in our three network businesses. And the Independent Review Panel was formed as a subset of an interdepartmental committee (IDC). That interdepartmental committee comprised John Black as the Director General of the Department of Energy & Water Supply as Chair, Helen Gluer as the Under Treasurer, and John Grayson as Director General of the Department of Premier and Cabinet. And they had a much broader remit from government to look at the broader impacts on electricity prices from network costs, energy supply and retail competition. So they looked at the generation side and, in particular, the government-owned generation side and then retail competition.

As a subset of that, the Independent Review Panel looked at network costs, just that one component, and reported to the IDC. So the Independent Review Panel was formed by the government, the government established it, but it established it to report to the IDC and so a report was delivered to that IDC. There were two stages to that, there was an interim report delivered in late November and then a final report delivered just before Christmas. That final report contained 45 recommendations, which is three more recommendations than was in the interim report which is a public document. So the interim report is public, the final report has not yet been made public.

Our review focused on the three network businesses: Ergon Energy, Energex and Powerlink. And in particular it focused on Energex and Ergon Energy, which are much larger organisations than Powerlink and much more complex and with cost structures which are quite different to that of Powerlink. So just by way of example, each of Energex and Ergon Energy have assets of about $11billion, whereas Powerlink has about $6.5billion. Ergon Energy employs maybe 5,500 people, Energex about 3,500 people and Powerlink about 1,000. And Powerlink's primarily white collar professionals, mainly engineers in a highly technical area; Ergon Energy and Energex have a mixture of white collar, blue collar, near-blue or off-white - whatever you want to call them - and both professional trades and others. So our review primarily focused on those two organisations, although we did make some recommendations in relation to Powerlink.

The key findings of the Independent Review Panel were that the capital programs and the operating costs of the GOCs have increased sharply and unsustainably – and I use the term deliberately – unsustainably in response to prescriptive system design standards such as the N-1 Security Standard and the minimum service standards that were imposed by government in the middle of the last decade. There was a second contributing factor, and that was the consistent over-estimation of demand by the network businesses, and John made reference to this. We're all well aware that there were lots of factors which resulted in that outcome, it's not just because there was an under-estimation, that the propeller heads in each of those organisations is not getting their models right. A lot of people would not have predicted the impact of solar panels and the impact of energy conservation consciousness on consumers' demand for power.

And I think John also made reference to the revenue cap control mechanism which applies in some jurisdictions, versus a price cap control mechanism which applies in some others. We have a revenue cap control system in Queensland and that places all of the volume risk on customers. So if a network business over-estimates demand and the capital program is larger than it should have been, then the customer takes the hit in the form of a higher price in order to generate the revenue on lower volumes than were forecast. The increase in network costs and network tariffs has been one of the primary drivers of escalating electricity prices and, with retail price caps and wholesale electricity prices at record low levels, the increase in network prices has taken all of the gap. So it's not unreasonable to conclude that any future increases in prices will be due to wholesale energy costs.

Our panel made a bunch of recommendations. They covered network reliability standards and in particular addressed the issue of the N-1 reliability standard and the minimum service standards. We made recommendations in relation to network planning, in relation to demand forecasting, peak demand management, overhead expenses, operational efficiency, structural reform and ownership.

I think the peak demand management issue is a very important one. Many of you will be familiar with the concept of a load duration curve and that most load duration curves for both Ergon and Energex will show that probably there's about 100 hours in the year when we get peak load, but we have a network that is built to cope with the load for that period. There are 8,760 hours in a year and so for 100 of those hours we get very high levels of demand and we build a network that's capable of supporting that capacity for the whole time, which means that there are 8,660 hours of the year when that network is being under-utilised. If we built our road network the way we build the electricity system then if you went to the freeway here at eight o'clock in the morning it would be flowing as freely at eight o'clock in the morning as it was at midnight. And you can imagine what that road system would need to look like to have the traffic flowing as freely as that and how costly that would be. So if we did that with the electricity system we'd get brown outs and black outs because we'd simply say "Oh well, demand's too high, it's just not going to cope". So peak demand and managing peak demand is one important way in which we can manage network costs and the capital programs.

From our review we made some projections about what might happen, but given the substantial assets bases of the three NSPs (network service providers) it's going to take some time for the reductions in capital programs and operating costs to flow through to network charges. So the government has no expectation that there's a silver bullet which is going to result in some immediate impact which will be able to flow through to customers. We do expect that the implementation of our recommendations will impact on electricity prices for network operations and capital programs and that there will be a reduction in the pressure on retail electricity prices from the networks themselves, but that will occur over a number of years although we do expect to see some impacts from 2015. And we've also reminded government that electricity prices are impacted by a range of other factors. Although network costs have been the primary driver of electricity price increases in recent years, there have been other contributing factors and they're likely to be the major contributing factors into the future. And they're things like green schemes and carbon imposts, as well as some regulatory issues and obviously electricity generation costs. We've had very low wholesale electricity prices for quite a number of years now, they're at historical low levels, and it's ironic that with wholesale electricity so cheap that retail electricity prices are so expensive.

Our report was submitted to government back in December, it was actually submitted to the IDC, as I mentioned earlier. That IDC then has in turn made its own broader recommendations, which may or may not include all of our recommendations, and they've gone to government. Those are now being considered by government and no doubt there'll be a response by government in due course.

CHRIS GREIG: Thanks Tony. So I'll now ask Tony Wood: Tony, you wrote the report that John referred to that was entitled 'Putting the Customer Back in Front: How to Make Electricity Prices Cheaper'. In that report you said we are paying too much for electricity because the regulation of networks is broken. Are these gentlemen going to fix it?

TONY WOOD: I would like to think so. I think the diagnosis is pretty good actually. The question is whether it will actually deliver the right solutions or the right medicine and will the patient actually swallow it? The work we did last year was in a crowded space and we tried to focus on those things which would make big difference, and John's referred to several of those.

As you've already heard, prices had gone up a lot and everyone was pointing fingers at various parts of the chain. We started from the other end and thought what do the actual results look like? And what we found was that the equity returns these businesses were getting – and these are businesses that have across Australia, whether they be private or public, very low-risk, they are virtually no volume risk and virtually no price risk and yet they're getting equity returns higher than listed companies that have both volume risk and price risk. That seemed to us to be an unreasonable outcome just based upon the results and what that might be caused by is a different question, but fundamental. And when you look at some of the drivers of that – and we made fundamentally four recommendations. We looked at this question of returns and our conclusion was that the debt calculation – and John's referred to that – needed to be addressed. We also thought that the equity calculation needed to be addressed, and that's a somewhat arcane argument but, because these are so capital-intensive, a very small change in the rate of return that's allowed on equity makes an enormous difference to the end price.

Secondly, we did look at questioning as to why we'd seen these changes in the various businesses, and one of them was clearly associated with changes in reliability standards. And it seemed to us that the ship had been vastly oversteered in at least a couple of states where that had been a problem with reliability and it had almost gone too far the other way, and that needed to be looked at. It's a very complex issue, and John's referred to that in terms of when you get into the detail of exactly how you measure reliability it turns out to be a lot harder than you think and looking at the way in which consumers, both business and residential, might think about valuing reliability is a complex issue, and we've tended to mostly stay clear of that.

We did look at ownership. When we started this piece of work I would have said "Look, why wouldn't you be indifferent to ownership? Surely a well-regulated business with a good regulatory system would produce a result more or less the same?" And yet when we looked at the results we found significant differences which couldn't be explained by reliability only and couldn't be explained only by different demographics or different geographies; it clearly was the difference in the way in which the government-owned businesses were spending more on capital on any unit we could measure and more on operating costs than anything we could measure. Now, that's not to say all the businesses are like that, but there's something going on there. Our view was that it was probably more to do with the governance structures as much as ownership per se and that's why we said "Look, politically ownership is going to be a challenge" and certainly Queensland and New South Wales still see that as being the case. But there are things you can do to improve the governance structures and the way these businesses are being managed.

And finally, and John referred to this one as well, it seemed to us that one of the big changes that was taking place was the issue of demand forecasting. And by the time the regulator gets the data to then forecast capital requirements five years out, the data's probably already 18 months to two years old anyway. So by the time you get to the end of the five year period it's almost six-and-a-half, seven years old. Now, no business is going to continue to invest on the basis of a forecast that's seven years out of date and to some extent that's what was being asked of these businesses. And so we said "Look, there must be a better way of doing this". Not suggesting necessarily that visiting an annual forecast by AEMO is the only solution, but it seemed to us that, in the absence of anything else, the fact that AEMO now puts out an annual forecast with details about the way the projected energy demand should be something that the businesses should be asked to revisit and explain why they would continue to invest in, for example, growth capital when the forecast was saying the growth was actually less than that. And so we thought that was a practical issue that could possibly be addressed without fundamentally taking away the sort of incentives that businesses should have. And we recognised there is going to be to some extent a trade-off between a more prescriptive-type regulatory outcome and a more incentive-based regulatory outcome. But as far as we can see, on the basis of what we looked at, the current mechanism, which was more based upon incentive and less on prescriptive, was producing a bad outcome and we should at least move the ship a little bit the other way and then we see how we go, because I don't think you can possibly want to oversteer and go too far towards the consumer because you might end up with the situation in which we have to go back the other way again because we end up with under-investment and therefore real problems with reliability.

So we looked at those four issues. We are optimistic that the sort of directions, the sort of changes that have been recommended by the AMC, particularly to the AER, are in the right direction and the AER, as you may know, has been given some additional resources and has been giving some additional capacities. Our worry is that there is an enormous asymmetry of information. The best people in some of these businesses work in the regulatory side of the business, and there's a good reason for that, and our concern will be that if we still focus on the inputs and don't look at what's being generated as a result, what sort of returns are these businesses getting and what outcomes are they achieving, then we may still be in for a bit of pain yet. Our expectation would be that prices should be coming down, not that the rate of growth should be mitigated, and that's what we'd be looking for in the next regulatory reset which starts to occur from about July this year.

CHRIS GREIG: Thanks Tony. So I'm going to open it up to questions. I'd just like to ask, where do we think it could get to from today's pricing on a network basis, where should it be? So in Texas I understand it's 3c a kilowatt hour. Here's it's four times that or something. What's doable here? Any of you? And I realise it won't be tomorrow.

TONY WOOD: AMC put out a report recently which looked at a projection of prices between now and 2014/15, it quite sensibly put in a disclaimer as well that this wasn't a forecast. But when you look at the retail prices we pay they vary between 25c and 33c, something like that, in South Australia across Australia. There are some reasons why we may very well be different from Texas, and I've heard some suggestions, Chris, that maybe some places in the US are up for a bit of a shake-up pretty soon as well because they're back where we were maybe 10 years ago. So that difference may very well shrink. But on any measure, we still seem to be paying quite a lot and in our view even those three or four things we've identified, if they were aggressively looked at by a regulator who actually bit with the teeth they'd been given then we'd expect to see something like $2billion a year being benefits that would accrue to consumers.

Now I wouldn't attempt to do a Julia Gillard and say it's $250 a consumer, but it's something of the order we would say north of $100 per customer per year would be generated from those savings.

AUDIENCE: Tony Wood, you mentioned returns on equity and so on. I'd just like to understand what return on equity these companies are receiving and what sort of debt-to-equity ratio or leverage they've got?

TONY WOOD: I've got the chart in front of me, but it's about a couple of percent. If you look at the actual profit as a measure of profitability and the variation of profit as a measure of risk and just chart those – and there's a chart in our report – what you find is that the equity returns are probably a few hundred basis points above for these businesses on average than other companies. Now, not every business is like that. Some of them actually are obviously being managed much more aggressively than that at a lower return. The two key factors that come into this is the equity beta that measures the risk effectively, and when the AER did its assessment it said "Well look, when we look at this we're getting an assessment that the equity beta should be between 0.4 and 0.6" and what did they use? They used 0.8. That sounds like a somewhat arcane discussion but the difference between. And we said if you brought it back from 0.8 even to 0.7, let alone to the range of between 0.4 and 0.6, recognising that the market generally is 1, that makes a difference of several hundreds of millions of dollars a year. So that's the sort of thing that a relatively small adjustment could bring the ship back a little bit maybe away from investors and towards consumers, but actually would suggest that we could do it a bit better.

AUDIENCE: I thought I'd give a perspective of someone as a major user who actually pays the bills from all these activities. But I suppose my first comment was it's amazing to see the furious agreement of all the stakeholders to the issues that have been raised tonight, whether they be the too high rate of return, the too high debt-risk premium, the lack of benchmarking in the past, the scrutiny of capex and opex, the overly-optimistic demand forecasts which us, as energy users, were making five years ago and were very alone in those debates now. And so it's wonderful to see you've all come on-board, thank you. But I suppose I also look forward to you having the same view on the markets merit system and the review that John Tamblin and his committee have done to say the issues that that arises and the problems that that has contributed to the rise in electricity prices. After all, we're the ones who the national electricity market says it's all about us, the long term main objective is about consumers, and I don't think we're being particularly well served by the regulatory system over the last five years. The AMC now comes out and says that the price rises over the next few years will be at CPI or less, and that's very comforting for us, but the problem is that the 15% or greater increases over the last five years are locked in and they're still there and we're still paying them.

So with those comments, I ask a couple of questions of the panel. My first question and I know this is a debate that's ongoing at the moment: what's going to happen to the stranded assets that have been built as a result of the poor examination of previous revenue cycles? There are a lot of assets out there that are now not being used because we over-estimated demand. I am in an industry that I'd love to get a guaranteed rate of return and a high guaranteed rate of return with a high debt-risk premium on the assets that I find might be stranded because the demand for my minerals has fallen, but I can't do that. And secondly, the issue about state governments and their use of distribution and network entities as an extension of their revenue-raising activities. I tend to agree, I think, with what the Grattan Institute has said about that matter, although it's not just a matter of whether it's ownership or not because my understanding from the work that the Energy User's Association has done is that the efficiency of the Victorian distributors is generally greater than the efficiency of the New South Wales and Queensland distributors. And so they seem to have got it right, so maybe ownership does make a difference there. But it's also, I suppose, the issue around how the AMC has treated publically owned enterprises the same as privately owned enterprises when they worked out the rate of return. So not only have we had an inefficient way of setting a rate of return that's ended up being much higher than it should be, state governments have rode on the coat tails of that as well as getting the tax equalisation payments. Thanks.

CHRIS GREIG: Who would like to go first? John?

JOHN PIERCE: There's a full menu there. I certainly agree that the important part of this process is how the merits review process is undertaken and, as you obviously know, the panel's got some recommendations before governments and I'm expecting them to be doing something about that this year. The chief issue there is really the degree to which the determinations of the regulator can be appealed by in theory anybody, but really the only one that's in a position to do so are the businesses themselves and that appeal goes to a tribunal attached to the ACCC, the Competition & Consumer Tribunal. And the appeals process, the contention is, is a very legalistic one that looks at individual components of the determinations where the tribunal can substitute what it thinks is a more correct answer to individual components of the determination, so the equity risk beta, and then add up the rest of the numbers and you get a bigger price rise. The recommendations that are before government are really to take it out of that legalistic framework, have the appeal body be more of an administrative nature where they look at the overall outcome rather than the correctness of individual components.

And that really links to a question earlier, for anyone that's measured these sorts of things of course, measuring the individual components of a rate of return, there are certain bounds around your degrees of certainty around each individual component. And the contention was that under the old rules the regulator was driven to picking a particular estimate for each of the components and mechanically putting it through the formula and then getting a result and saying "Well, that's the result that comes out of the formula". As distinct from recognising that every number you put in it is reasonable if people could accept a range for each of those individual components, and you put your numbers through, you look at the end result and go "Hmmm, does that look reasonable?" It's not really about justification, but it's just recognising that the uncertainty around each of these components and the purpose of the rule changes was to get the focus of the decision on the aggregate rate of return outcome, not give them formula to apply for each of the components. And through that process I'd suggest, coming back to one of your issues, you might have more confidence in the nature of the rate of returns that are set by the regulator, and certainly it's possible for them to set a more appropriate rate of return going forward. And that rate of return will apply to the total asset base, not just obviously the new investments, so to the extent that there are over-capacity sitting out there that is not being used or at least is not being used as quickly as it might have otherwise been, that should be reflected in the rate of return number that the regulator comes up with.

The issue I raised on the back of what you're referring to was really, we've had a lot of focus on the regulated part of this sector, being the network part of course. And we've got wholesale prices, it was said earlier, at the lowest they ever been for the raw stuff, the energy, and perhaps at unsustainably low levels. So one of the things that keeps me awake at night is the thought that the pressure on prices that's come from the regulated part of the supply chain, just as that's tapering off, particularly with views about where raw fuel prices, particularly gas prices, may go to, plus the impacts of policy interventions from commonwealth and state governments into the energy market, usually under the banner of climate change sorts of policies, whether as this network pressure is falling off the pressure from the other components of the supply chain will also start to emerge and probably around 2015 might be one year in which it starts to emerge.

I just want to come back to your bit about state governments. If you think about what a state government has to do, part of the financial management task at the centre of government is to allocate a limited capital that the state has between the various things it can do with it. And whilst when the regulatory determination is made, when the capital allocation is made, of course, any owner, including a state treasury, will want to get the best dividends they can out of that individual business. If they came into your office and said “Give us more capital and we’ll give you more dividends in the future” they’d be bounced out of the room with a kick in their bum very quickly, because it doesn’t recognise the opportunity cost of the capital that goes into these businesses.

Over the forward estimates period, the relevant period for state governments to worry about, you’re generally far more concerned about allocating capital to things like police stations, schools and hospitals than you are to energy networks, particularly when any future dividends that come out of that capital expenditure are going to comes years down the track, beyond the timeframe that state governments tend to do their financial planning over. And whilst it’s not dollar-for-dollar, every additional dollar of debt that goes into these energy businesses is less capital that you can put into general government services. And sitting around cabinet tables, at least in my experience, a greater value is placed on the capital that can be delivered through the general government sector than it is through these public trading enterprises. So rather than deliberately wanting these guys to borrow more, to spend more capital to get future dividends, the pressure, just from being consistent with the rest of the financial management objectives of a state government, is actually quite the reverse; it’s to try and have these guys borrow as least as possible without the lights going off because that gives you greater freedom in the more immediate schools, hospitals, police stations.

TONY BELLAS: There’s significant political risk in the lights going out, so governments will always err on the side of making sure the lights don’t go out because we all pay the network costs and we all use electricity and we all know it. It’s a thankless task running one of the network businesses because it’s taken for granted when the lights are on, but you’re in the gun when the lights go out. So in those circumstances the issue around capital rationing is not entirely an economic issue for governments. If a business is privately owned, capital rationing will be an entirely economic decision. If they’re publically owned, then it will be collateral issues to take into account. And arguably in Queensland and New South Wales over more than a decade there was not the same degree of capital rationing that occurs in private organisations. And governments are caught in invidious positions between owning these businesses and getting a return from them, and at the same time being a policy maker and having to make decisions around electricity prices. So the worst job to have in government, apart from being the Minister for Health, is probably being the Minister for Energy.

So, the capital rationing issue I think is a very important one. When you look at the issue of privatisation the fundamental considerations are how are these risks best managed? Are they best managed by the public or private sector? And what’s the best way in which to capitalise these businesses? You’d also ordinarily ask yourself is there any market value or any public policy reason for continuing to own these businesses? Well, in this case these are regulated monopolies, so it’s not a market value issue, but there is an issue around risk management and there is an issue around capitalisation. So I think John’s point is correct that governments would much prefer to be building hospitals and schools and police stations and other public assets, than putting them into businesses, some of which compete and some of which are in this regulatory space.

As far as the stranded assets issue is concerned, they’re there, they’re on the books and the regulatory process allows those to remain on the books, and it’s a cossetted position to be in. But going forward we simply need to ensure that the regulatory process and the government’s processes and the determination processes within management are such that we get efficient outcomes and we get efficient capital programs that deliver the service in accordance with the expectations of customers.

AUDIENCE: So a bit of a different slant, but there's been a lot of discussion here tonight about regulation and the building block form and the N-1 form of regulation. If you look at the experience in the UK over the last 15 years, they had a very similar regulatory model and one thing they have discovered is that it squeezed the funding for research, for innovative thinking to the extent that they just did not have the ability then to cope with what is happening with the growth in solar PVs, the growth in electric vehicles. And there's been a big change in the regulatory model being applied in the UK in the last year or two where they've moved to an innovation allowance. And I'm wondering, in terms of all the speakers tonight, do you see that we're going the same way in Australia? Because from the university sector we see that in the last 12 months the juice is being squeezed out of the funding which is available for industry to work with universities in terms of innovation and applied research. In the UK they recognised that, they got down to about 0.1% was being invested in innovation and research. You only need a small amount to be allocated to that to be then able to have the capability to be more innovative, to handle the needle peaks, to handle the growth in distributed generation, solar PV. But you've got to actually have some positive direction to the regulatory model to make that happen.

CHRIS GREIG: Any comment, John or Tony?

JOHN PIERCE: You've just raised a bunch of issues that are probably another 40% of what we do. The distribution planning processes that we've just recently made some rules around are currently dealing with rules around the way in which the distributor generation are connected, the connection process of the distributed generation.

The Commission has two roles: one is a statutory rule-making role, like with the network regulation and the connections processes and the distribution planning processes where it's a statutory role, we make a rule and it has the same standing as legislation or regulation generally; but we also have a policy advice role which is done through reviews, essentially reports that go to government. And under that banner, a major piece of work with the government recently entitled 'Power of Choice' which was really about how to get greater coordination between the different parts of the supply chain such that the economic opportunities for things on the customer side of the meter, as well as opportunities for efficient distributed generation, were easier to see and so that some of the players in the sector can build a business model around exploiting those opportunities, rather than being directed to through regulation, which I think is a more sustainable way going forward is providing people with incentives to make money out of, let's say, creating a market for different types of metering, than through reaching into the regulatory tool bag and imposing it on people.

TONY BELLAS: I'd agree with that. You can make rules for all sorts of things and you can try and regulate to achieve an outcome in the area that you referred to. But the market is working, and John's made reference to at least one business model. There are a number of businesses out there which are pursuing demand management opportunities and distributed generation opportunities, and I'm a big believer in markets and markets do work. But you can't have a rule for everything, you can't provide an incentive. I'd like to have a law which says that people can't use mobile phones in elevators because it really annoys me, but I don't think we're going to get one of those laws. So we've had, I think, 160 rule changes in the last five years and we have 2,000 pages of rules governing this market. So it's probably a bit overdone and maybe we could do with fewer rules and fewer rule changes.

TONY WOOD: One of the things I think about this evening, and probably not into the too far distant future, is two things: one is the extent to which individual companies can take advantage of the use of information. So later this year a moratorium on using the information that is available from Smart Meters in Victoria, the roll-out of which was appallingly badly managed but they're there now and hopefully we'll start to see people using that information in some really clever ways. At the same time, if we're seeing a continuation of this falling demand that we talked about earlier, and that actually puts some interesting pressure on the whole system because what you're going to find is that these businesses, particularly those with caps on their prices and revenue, will readjust and rebalance so then the price will go up significantly.

Now, part of what AGL referred to in their piece of work called the death spiral is that you start to create some really challenging but incentives for companies and individuals to behave in certain ways and some really challenging things for the owners of the existing assets. I mean, if you were owning generation and demand is falling away and basically you moth ball your plan, your shareholders wear the cost of all that. As Tony implied, in these businesses the consumers are still paying for it. And the really interesting test over the next two, three, four, five years will be to what extent consumers will be prepared to continue to pay for what actually will become an increasing unit price for electricity.

CHRIS GREIG: Do we have any more questions?

AUDIENCE: A couple of things. In terms of regulation I totally agree, I think the format in terms of regulation needs to change to change the risk. We fund our capital upfront when the determination's done to cover our risk through the process. We came out of a process where we had very aggressive state domestic product forecasts from the state government after the Global Financial Crisis; that fed into the whack which increased the cost of capital. In the first year of the determination, 10/11, our consumption went off 10%. So that was followed up last year by a 3% recovery and this year it's about 2% down. So what have we done? We've reduced our capital spend and opex spend by 20%. Now what Tony says is right, in 2015 the network prices actually start to go down and they go down from about 12c to about 10c if the market stays equal at this point in time. So there's a significant reduction in capital and if the capital markets stay where they are you'll get a reduction in the whack as well and a reduction in prices.

So in the last regulatory determination we went over because we have an obligation to connect and Queensland was booming. Ergon Energy is trade exposed; we connect the ex-stratas, we connect the infrastructure, the ports, the rail, all those sorts of things, and we did that in a booming economy. Now it's come off and therefore our investment is well down. We shouldn't always compare to Victoria. I spent a lot of time there and I know where Victoria was. Victoria had a very well-maintained asset, Queensland did not. Queensland's asset was in very poor condition and there's significant investment made in that asset over the last decade. The biggest spend in Ergon Energy today is asset replacement, not augmentation; augmentation has reduced quite substantially.

So the other thing though that the market needs is price signals. As a distribution business and a retail business I have little control over prices. If I was selling in a competitive market I'd be able to set my price. Network's not competitive of course, it has to be regulated, but the end price we have no control over. So those signals, the freeways that Tony talks about, we have had little influence in trying to take that peak demand off over the years. Now there's been an agenda for reform for well over a decade in Australia and we'd need to keep pushing on that price reform front because if we don't we do get peaks and we have to invest on the peak.

So, my ask of everyone here is that you work together: the regulators, the state governments, the federal governments, the distribution businesses; work together to get the right price outcomes and have the right market in place, because the market has to take precedence.

AUDIENCE: I've got a question more related to the way in which the rules work together. So I think Tony Wood, you said something earlier about demand forecasts and the interrelationship with the way the revenue is set. And I'm not sure whether you really meant this, but you kind of said that the demand forecast is seven years ahead so why would you still be investing on something that's seven years old? And the truth is that nobody does that.

The rules are a complex beast, everything has to work together, and it's not just Chapter 6 or 6a that sets the revenue that's in play; it's all of Chapter 5 as well. So all network businesses – Powerlink, Ergon, Energex – every network business around the country redoes their demand forecast every year. They have to. And the actual investments that they make are based on the most up-to-date demand forecasts; they're not based on one they set seven years ago. So they don't need AEMO to give them an updated demand forecast to do that, they have to do that anyway. All of the consultation processes for the investments under the RIT-T and the RIT-D that John referred to earlier come into play. So it's not like you just get your revenue stream and your demand forecast and off you go and you roll it out irrespective of what happens. That's not reality and practice.

So my question is more about the way in which the broader framework of the rules fits together. So the revenue regulation part or the regulation part, whether it's price or revenue, is one side which takes into account the fact that there's all the other 1,700 pages of rules and apply how people actually earn their money in the network business sector. So it's that balance of accountability, risk management, and incentive-based regulation. So the question really is, maybe to John: why is this the right combination of things? Why do we do incentive-based regulation with the accountability and risk balance as opposed to some other form of regulation?

CHRIS GREIG: So let everybody have a short response to those last two questions and then we'll just close it up.

JOHN PIERCE: There's books and PhDs this high written on exactly that subject. The short answer is, experience has concluded to quite a few people that the alternative, which tends to dominate in the US, where each of your projects gets approved by the regulator, the information of symmetries that apply in that case are worse than what we currently experience. And whilst there are all sorts of games that go on – there's games from the business and the regulator, and between management and their shareholders, and perhaps between regulators – that the opportunity for game-playing in the sense of getting individual projects through from the viewpoint of the incentive on the business, is for that to be an efficient investment and delivered efficiently is removed because it just essentially becomes a cost pass-through. And as we've experienced in those limited areas where we have cost pass-throughs within our existing process, which we've been narrowing over time what can go through under that heading - the meters in Victoria is one example – is that as soon as you get into that regime the business itself becomes indifferent and just wants to get it through the regulatory process. So whether it actually delivers the outcome or not doesn't matter, they still get their money.

TONY WOOD: I think two things. The first, in relation to the overall thing, Chris, and coming back to the point, I think the incentive mechanisms that work around operating expenses seem to work a whole lot more effectively than our own capital to the extent to which capital expenditure gets rolled forward into the asset base, and the way that's done and so forth seems to me to be an area of some concern. Whereas I think the operating costs arguably works a whole lot better in terms of the business having a real incentive to save money on operating costs. The other side of looking at this is really where we started and I'll come back to my comments at the beginning, and that is that however you look at what's going on – I mean, economic regulation of electricity as a natural monopoly is the oldest natural monopoly regulation we have in the world, it goes back to the 1920s or something. This is a very difficult area to get the balance right. Our assessment at one level was much simpler than that, is the balance has currently gone too far one way, in some cases arguably for good reasons because people were worried about the potential for under-investment. Our view, when we looked at the numbers, whether you look at the rates of return, whether you look at reliability, whether you look at relative efficiency, it's gone too far towards investors and too far away from consumers and by taking a relatively small number of actions you can actually bring it back a fair way. And we would absolutely agree that our recommendations are not the only ones to do that. But in our view, these things are only set not very frequently and we need to take the opportunity of the next regulatory process to really look much harder at the way in which we're getting the balance of the outcome, because at the moment it seems like all the focus on the inputs have generated a pretty poor outcome.

TONY BELLAS: My Panel did make some recommendations on regulation. Some of those recommendations are in the final report, which are not yet public so I can't refer to those, but overall we took a view that regulation can be tweaked, there can be changes made. Overall though, it's excessive, it's complex. The AER is under-resourced; we believe that the AER should be split out of the ACCC. And we need to address the issue of information asymmetry between the regulator and the business; the businesses are far better resourced to gain the regulatory process than the regulator themselves. So we made some recommendations around the current complexity and the need to address that issue.

CHRIS GREIG: Thanks everyone for attending. I guess my sense from listening to our three panellists is that we would seem to be at a reasonable amount of agreement and we might be on track to reducing costs, or at least holding them in the short term and reducing tem in the long term. The proof will be in the pudding I guess and we'll see over the coming years, and it is going to be years before it starts to flow through. But without any further ado, I'd like to thank our three speakers and for you to join with me in doing so.

End of recording